

**Abstract**

The invention relates to methods of regulating the activity of at least one component of the BRCA1-BRCA2-containing complex (BRCC) by providing agents which  
5 specifically interact with BRCC components BRCC36 or BRE or nucleic acid sequences encoding BRCC36 or BRE. Methods of identifying such agents and using them to treat cancer are also provided. BRCC activities altered by such agents include ubiquitin E3 ligase activity, ubiquitin hydrolase  
10 activity, DNA repair activity, and transcriptional regulator activity.

BRCC36-specific antibodies and methods for diagnosing cancers associated with BRCC are also described.